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IN THE CLAIMS:

1. (Currently Amended) A method for providing high connectivity communication over a Time Division Multiplexed and Wavelength Division Multiplexed (WDM) packet-switched optical ring network having a plurality of nodes connected thereto, where some of the nodes service a plurality of users and at least one node couples one ring of said network to another ring of said network comprising the steps of:

creating, at node A of said plurality of nodes, a composite packet that contains a plurality of constituent packets that are not constrained to all have a particular node of the network as the ultimate destination of the constituent packets;

dropping from said network, at said node A, a composite packet that is destined for said node A;

~~adding into said network said composite packet created by said step of creating; and~~

routing over said network said composite packet added into said network by said step of adding.

2. (Previously Presented) The method according to claim 1 where said step of adding adds said composite packet into an empty photonic time slot of said network.

3. (Previously Presented) The method according to claim 1, further comprising the step of decomposing the dropped composite packet into is constituent packets.

4. (Previously Presented) The method according to claim 1, further comprising the step of decomposing the dropped composite packet into a partial composite packet that contains some of the packets constituting the dropped composite packet, and a set of remaining ones of the packets constituting the dropped composite packet.

5. (Currently Amended) A method for providing high connectivity communication over a Time Division Multiplexed and Wavelength Division Multiplexed (WDM) packet-switched optical ring network having a plurality of nodes connected thereto comprising the steps of:

creating, at node A of said plurality of nodes, a composite packet; and

routing over said network said composite packet added into said network by said step of adding, where the step of creating ~~The method according to claim 1, wherein said creating step~~ further comprises the steps of:

generating a plurality of packets, each packet being generated at a different wavelength; and

stacking said plurality of packets to form said composite packet.

6. (Original) The method according to claim 1, wherein said packet-switched optical ring network is a point-to-point network.

7. (Previously Presented) The method according to claim 1, where said step of dropping takes place by operation of a control signal at an optical switch of said node A.

8. (Previously Presented) The method according to claim 1, wherein said dropped composite packet is further distributed to a plurality of user sites connected to said one of said plurality of nodes by using WDM techniques according to said constituent wavelengths of said composite packet.

9. (Previously Presented) The method according to claim 1, wherein said dropped composite packet is dropped by said step of dropping from a photonic time slot.

10. (Previously Presented) The method according to claim 8, wherein said WDM techniques employ a fiber Bragg grating.

11. (Previously Presented) The method according to claim 1, where said dropping a composite packet occurs during a time slot, and said adding the composite packet created by said step of creating occurs during said time slot.

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12. (Previously Presented) The method according to claim 1 further comprising the step of unstacking the composite packet dropped by said step of dropping to form a set of individual packets, each at its own wavelength.

13. (Previously Presented) The method according to claim 12 where the set of individual packets simultaneously appear over a set of outputs.

14. (Previously Presented) The method of claim 12 where the packet of the set of individual packets appear sequentially in time.

15. (Previously Presented) The method according to claim 1 where said creating a composite packet comprises the steps of:

accepting a set of packets P_j, arriving at times $T+j\Delta$, where index $j=0,1,2,\ldots N$ and applying to each packet P_j, $j=0,1,2,\ldots N$, a delay of $(N-j)\Delta$, to obtain thereby delayed packets; and

combining the delayed packets to form said composite packet.

16. (Previously Presented) A method for providing high connectivity communication over a packet-switched optical ring network having a plurality of nodes connected thereto comprising the steps, at one of said plurality of nodes, of:

(a) dropping from said ring network, in a photonic time slot, a composite packet;

(b) at least partially unstacking the dropped composite packet to develop one or more sets of packet signals, or developing a partial composite packet that contains said one or more sets of packet signals;

(c) creating a composite packet from said one or more sets of packet signals or said partial composite packet, added to other packets; and

(d) adding the created composite packet to said ring network.

17. (Previously Presented) The method of claim 16 where said steps (a) and (b) are carried out by employing a plurality of fiber Bragg grating elements.

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18. (Previously Presented) The method of claim 17 where at least some of said fiber Brag grating elements are tunable.

19. (Currently Amended) A method for communicating information in a network comprising the steps of:

carrying over said network composite photonic packets, each of which occupies a time slots and a given set of wavelengths;

coupling composite packets between said network and information handling module of said node.